



DOCKET NO: W0571.70010US02

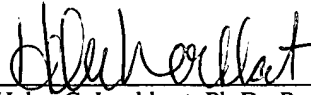
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Tuschl et al.
Serial No: 09/821,832
Confirmation No: 6240
Filed: March 30, 2001
For: RNA SEQUENCE-SPECIFIC MEDIATORS OF RNA INTERFERENCE

Examiner: S. Chunduru
Art Unit: 1637

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 26 day of October, 2004.


Helen C. Lockhart, Ph.D., Reg. No. 39,248

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Sir:

Transmitted herewith are the following documents:


- ☒ Supplemental Information Disclosure Statement and PTO-Form 1449 and cited references;
- ☒ Check in the amount of \$180.00; and
- ☒ Return Receipt Postcard.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 646-8000, Boston, Massachusetts.

A check for \$180.00 is enclosed. If the fee is insufficient, the balance may be charged to Deposit Account 23/2825. A duplicate of this sheet is enclosed.

Respectfully submitted,

Thomas Tuschl et al., Applicants

By: 
Helen C. Lockhart, Ph.D., Reg. No. 39,248
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 646-8000

Docket No.: W0571.70010US02
Date: October 26, 2004
xNDDx



DOCKET NO: W0571.70010US02

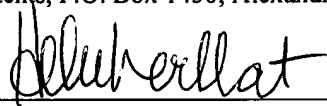
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Tuschl et al.
Serial No: 09/821,832
Confirmation No: 6240
Filed: March 30, 2001
For: RNA SEQUENCE-SPECIFIC MEDIATORS OF RNA
INTERFERENCE

Examiner: S. Chunduru
Art Unit: 1637

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 26 day of October, 2004.


Helen C. Lockhart, Ph.D., Reg. No. 39,248

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL STATEMENT FILED PURSUANT TO THE DUTY OF
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

Compliance with 37 C.F.R. §1.97

This Information Disclosure Statement has been filed more than three months after the filing date of this application and after the mailing date of the first Office Action, but before the mailing date of either a final action under 37 C.F.R. §1.113 or a Notice of Allowance under 37 C.F.R. §1.311, or an action that otherwise closes prosecution in this application.

The fee of \$180.00 as set forth in 37 C.F.R. §1.17(p) is enclosed.

811384.1

10/28/2004 EAREGAY1 00000113 09821832

01 FC:1806

100.00 OF

Information Cited

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified). The order of presentation of the references should not be construed as an indication of the importance of the references.

Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

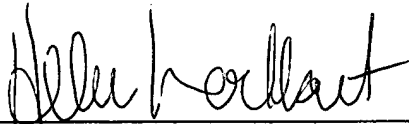
By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

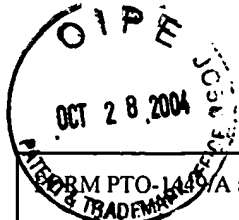
Notwithstanding any statements by the Applicant, the Examiner is urged to form his own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,
Thomas Tuschl et al., *Applicant*

By: 
Helen C. Lockhart, Ph.D., Reg. No. 39,248
Wolf, Greenfield & Sacks, P.C.
600 Atlantic Avenue
Boston, Massachusetts 02210-2211
Telephone: (617) 646-8000

Docket No. W0571.70010US02
Date: October 27, 2004
XNDDX



INFORMATION DISCLOSURE STATEMENT BY APPLICANT		APPLICATION NO.: 09/821,832		ATTY. DOCKET NO.: W0571.70010US02	
		FILING DATE: March 30, 2001		CONFIRMATION NO.: 6240	
		APPLICANT: Thomas Tuschl et al.			
		GROUP ART UNIT: 1637		EXAMINER: S. Chunduru	
Sheet	1	of	5		

U.S. PATENT DOCUMENTS

Examiner's Initials	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication or of issue of Cited Document MM-DD-YYYY
		Number	Kind Code		
	A1	5,580,859		Felgner P.L. et al.	12-03-1996
	A2	5,770,580		Ledley F.D. & O'Malley B.W.	06-23-1998
	A3	5,972,704		Draper K.G. et al.	10-26-1999
	A4	6,225,290		German M. et al.	05-11-2001
	A5	6,475,726	B1	Tally et al.	06-25-1999
	A6	6,531,647	B1	Baulcombe et al.	09-22-1998
	A7	2002/0086356	A1	Tuschi et al.	07-04-2002
	A8	2002/0132257	A1	Giordano et al.	09-19-2002
	A9	2002/0137210	A1	Churikov	09-26-2002
	A10	2002/0160393	A1	Symonds et al.	10-31-2002
	A11	2003/0068301	A1	Draper et al.	04-10-2003
	A12	2003/0108923	A1	Tuschl et al.	06-12-2003
	A13	2003/0140362	A1	Macejak et al.	07-24-2003
	A14	2003/0148985	A1	Morrissey et al.	08-07-2003
	A15	2003/0171311	A1	Blatt et al.	09-11-2003
	A16	2003/0190654	A1	Heidenreich et al.	10-09-2003
	A17	2003/0206887	A1	Morrissey et al.	11-06-2003
	A18	2004/0038921	A1	Kreutzer et al.	08-11-2004
	A19	2004/0054156	A1	Draper et al.	03-18-2004
	A20	60/130,377		Packuk et al.	06-06-2000
	A21	60/279,221		Tuschi et al.	11-19-2001

FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B1	WO	94/01550	A1	Agrawal, S. et al.	01-20-1994	
	B2	WO	99/32619	A1	Montgomery, M., et al.	07-01-1999	
	B3	WO	99/49029	A1	Graham, MW et al.	09-30-1999	
	B4	WO	99/53050	A1	Waterhouse, PM et al.	10-21-1999	
	B5	WO	99/61631	A1	Heifetz, PB et al.	12-02-1999	
	B6	WO	00/01846	A2	Plaetinck et al.	01-13-2000	
	B7	WO	00/32619		Fire, A et al.	07-01-1999	
	B8	WO	00/44895	A1	Kreutzer, et al.	08-03-2000	
	B9	WO	00/63364	A2	Pachuk, C et al.	10-26-2000	
	B10	WO	00/63364	A3	Pachuk, C et al.	10-26-2000	
	B11	WO	01/75164	A2	Tuschi, et al.	10-11-2001	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 09/821,832		ATTY. DOCKET NO.: W0571.70010US02	
				FILING DATE: March 30, 2001		CONFIRMATION NO.: 6240	
				APPLICANT: Thomas Tuschl et al.			
				GROUP ART UNIT: 1637		EXAMINER: S. Chunduru	
Sheet	2	of	5				

FOREIGN PATENT DOCUMENTS

Examiner's Initials	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document (not necessary)	Date of Publication of Cited Document MM-DD-YYYY	Translation (Y/N)
		Office/ Country	Number	Kind Code			
	B12	WO	01/92513	A1	Arndt, et al.	12-06-2001	
	B13	WO	02/44321	A2	Tuschl, et al.	06-06-2002	
	B14	WO	02/055692	A2	Kreutzer, et al.	07-18-2002	
	B15	WO	02/059300	A2	Arndt, et al.	08-01-2002	
	B16	WO	02/059300	A3	Arndt, et al.	08-01-2002	
	B17	WO	03/029459	A2	MaxPlanck-Gesellschaft	04-12-2003	
	B18	WO	03/033700	A1	Kreutzer, et al.	04-24-2003	
	B19	WO	03/062394	A2	Genetica, Inc.	07-31-2003	
	B20	WO	03/099298	A1	MaxPlanck-Gesellschaft	12-04-2003	
	B21	DE	10100586	C1	Ribopharma AG	04-11-2002	
	B22	DE	19903713.2		Kreutzer, et al.	05-11-2000	
	B23	DE	19956568	A1	Kreutzer, et al.	08-17-2000	
	B24	DE	200 23 125	U1	Ribopharma AG	06-18-2003	
	B25	CA	2 359 180		Kreutzer, et al.	08-03-2000	
	B26	EP	0 983 370	B1	Greirson et al.	09-17-2003	
	B27	EP	1 144 623	B1	Kreutzer, et al.	08-28-2002	
	B28	EP	1 214 945	A2	Kreutzer, et al.	09-04-2002	
	B29	EP	1 214 945	A3	Kreutzer, et al.	09-04-2002	
	B30	GB	9827152.1		DEVGEN NV	07-03-1998	

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C1	"Agy Therapeutics announces study demonstrating utility of RNA interference in mammalian cells for CNS drug discovery." Press release, November 2001	
	C2	Agrawal S, "Antisense oligonucleotides: towards clinical trials." Trends in Biotechnology. 14: 376-87. Oct-96	
	C3	Ahlquist P., "RNA-dependent RNA polymerases, viruses, and RNA silencing." Science, 296: 1270-3, May 2002	
	C4	Anderson WF, "Human gene therapy." Nature. 392: 25-30, April 1998	
	C5	Bahraimian, MB et al. "Transcriptional and Postranscriptional Silencing of Rodent α (I) Collagen by a Homologous Transcriptionally Self-Silenced Transgene." <i>Molecular and Cellular Biology</i> . 19(1): 274-83.	
	C6	Bartel, B., "MicroRNA Shows Macro Potential" Scientist 17(12): 1-9, June 2003	
	C7	Billy E et al., Specific interference with gene expression induced by long, double-stranded RNA in mouse embryonal teratocarcinoma cell lines." PNAS., November 2001	
	C8	Bosher JM and Labouesse M., "RNA interference: genetic wand and genetic watchdog." Nature Cell Biology 2: E31-6, February 2000	
	C9	Branch AD, "A good antisense molecule is hard to find." Trends in Biochemical Sciences. 23: 45-50, Feb. 1998	
	C10	Brummelkamp T. et al., "A system for stable expression of short interfering RNAs in mammalian cells.", Scienceexpress. Pages 1-3; Science, 296:550-3, March 2002	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 09/821,832		ATTY. DOCKET NO.: W0571.70010US02	
				FILING DATE: March 30, 2001		CONFIRMATION NO.: 6240	
				APPLICANT: Thomas Tuschl et al.			
				GROUP ART UNIT: 1637		EXAMINER: S. Chunduru	
Sheet	3	of	5				

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C11	Caplen N. et al., "Specific Inhibition of gene expression by small double-stranded RNAs in invertebrate and vertebrate systems.", PNAS, 98(17): 9742-7, August 2001	
	C12	Carmell M. et al., "The Argonaute family: tentacles that reach into RNAi, developmental control, stem cell maintenance, and tumorigenesis." Genes & Dev., 16: 2733-42, 2002	
	C13	Castanotto D. et al., "Functional siRNA expression from transfected PCR products." RNA, 8(11): 1454-60, August 2002	
	C14	Chiu Y-L, et al., "siRNA function in RNAi: a chemical modification analysis." RNA, 9: 1034-48, June 2003	
	C15	Chiu Y-L et al., "RNAi in human cells: basic structural and functional features of small interfering RNA." Molecular Cell., 10: 549-61, September 2002	
	C16	Clemens J. et al., "Use of Double-stranded RNA Interference In Drosophila Cell Lines to Dissect Signal Transduction Pathways" Proc. Natl. Acad. Sci. 97(12): 6499-6503, June 2000	
	C17	Clemens MJ and Elia A. "The double-stranded RNA-dependent protein kinase PKR: structure and function." J. of Interferon and Cytokine Res. 17: 503-24. 1997	
	C18	Corsi A. et al., "Caenorhabditis elegans Twist plays an essential role in non-striated muscle development.", Development, 127: 2041-51, April 2000	
	C19	Devroe E. et al., "Retrovirus-delivered siRNA." BMC Biotechnology, 2:15, August 2002	
	C20	Dichoso D. et al. , "The MADS-Box factor CeMEF2 is not essential for Caenorhabditis elegans myogenesis and development." Dev. Biol., 223: 431-40, 2000	
	C21	Elbashir S. et al., "RNA interference is mediated by 21- and 22-nucleotide RNAs, Genes Dev., 15: 188-200, January, 2001	
	C22	Elbashir S. et al., "Functional anatomy of siRNAs for mediating efficient RNAi in Drosophila melanogaster embryo lysate." The EMBO Journal. 20(23): 6877-88, 2001	
	C23	Elbashir S. et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in mammalian cell culture.", Nature., 411: 494-8, May, 2001	
	C24	Elela SA and Ares M, "Depletion of yeast Rnase III blocks correct U2 3' end formation and results in polyadenylated but functional U2 snRNA." The EMBO Journal. 17(13): 3738-46, 1998	
	C25	Escobar MA et al., "RNAi-mediated oncogene silencing confers resistance to crown gall tumorigenesis." PNAS., 98(23): 13437-42, November 2001	
	C26	Filippov V. et al., "A novel type of Rnase III family proteins in eukaryotes." Gene, 245(1): 213-21, February 2000	
	C27	Gonczy P. et al., "Functional genomic analysis of cell division in C. elegans using RNAi of genes on chromosome III." Nature., 408(6810): 331-6, November, 2000	
	C28	Grishok A. et al., "Genetic requirements for inheritance of RNAi in C. elegans." Science. 287: 2494-7., March 2000	
	C29	Grishok A. et al., "Target dependent accumulation of small RNAs during RNAi in C. elegans." 2001 International C.elegans Meeting Abstracts. [wm2001p307], May 2001	
	C30	Grishok A. et al., "RNAi (Nematodes:Caenorhabditis elegans) Adv. Genet. 46:339-360, 2002	
	C31	Hamilton, AJ et al. "A species of small antisense RNA in posttranscriptional gene silencing in plants." Science, 286(5441): 950-2	
	C32	Hammond S. et al., "Argonaute2, a link between genetic and biochemical analyses of RNAi." Science, 293: 1146-50, August 2001	
	C33	Hammond S. et al., "Post-Transcriptional Gene Silencing By Double-Stranded RNA". Nature Reviews Genetics., 2: 110-119, February 2001	
	C34	Hsieh J. et al., "The RING finger/B-Box factor TMA-1 and a retinoblastoma-like protein LIN-35 modulate context-dependent gene silencing in Caenorhabditis elegans", Genes Dev., 13: 2958-70, September, 1999	
	C35	Hsieh J. et al., "Recognition and silencing of repeated DNA", Annu. Rev. Genet., 34: 187-204, 2000	
	C36	Hutvagner G, et al, "Detailed characterization of the posttranscriptional gene-silencing-related small RNA in a GUS gene-silences tobacco." RNA, 6: 1445-54, July 2000	
	C37	Hutvagner G. et al., "In vitro processing of pre-let-7 RNA." 2001 RNA Society Meeting Abstracts, May, 2001	

FORM PTO-1449/A and B (Modified) INFORMATION DISCLOSURE STATEMENT BY APPLICANT				APPLICATION NO.: 09/821,832		ATTY. DOCKET NO.: W0571.70010US02	
				FILING DATE: March 30, 2001		CONFIRMATION NO.: 6240	
				APPLICANT: Thomas Tuschl et al.			
				GROUP ART UNIT: 1637		EXAMINER: S. Chunduru	
Sheet	4	of	5				

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C38	Hutvagner G. et al, "A cellular function for the RNA-interference enzyme Dicer in the maturation of the let-7 small temporal RNA". Science. 293(5531): 811-3, July 2001	
	C39	Hutvanger G. et al., "Intersection of the RNA interference and small temporal RNA pathways." Meeting Abstract. Cold Spring Harbor Laboratory meeting on "Eukaryotic mRNA Processing", August 2001	
	C40	International Search Report PCT/US01/10188 Int'l. Filing Date: 30/3/2001	
	C41	Jarvis R., "Optimize Transfection of siRNAs for RNAi", TechNotes, 9:6, 2002	
	C42	Kostich M, et al., "Identification and molecular genetic characterization of a LAMP/CD68-like protein from Caenorhabditis elegans", Journal of Cell Science, 113: 2595-606, June, 2000	
	C43	Lam G. et al., "Inducible expression of double-stranded RNA directs specific genetic interference in Drosophila." Curr. Biol., 10(16): 957-63, August, 2000	
	C44	Lee N. et al., "Expression of small interfering RNAs targeted against HIV-1 rev transcripts in human cells. Nat. Biotech., 20: 500-5, 2002	
	C45	Levin JZ et al., "Methods of double-stranded RNA-mediated gene inactivation in Arabidopsis and their use to define an essential gene in methionine biosynthesis." Plant Molecular Biology. 44(6): 759-75, December, 2000	
	C46	Li H. et al., "Induction and suppression of RNA silencing by an animal virus." Science, 296: 1319-21, May 2002	
	C47	Lin, et al. "RNA interference: policing rogue genes." Nature, 402(6758): 128-9	
	C48	Liu J. et al., "Essential role for Caenorhabditis elegans lamin gene in nuclear organization, cell cycle progression, and spatial organization of nuclear pore complexes.", Molecular Biology of the Cell, 11: 3937-47, November, 2000	
	C49	Liu J. et al., "Overlapping role of two Hox genes and the exd ortholog ceh-20 in diversification of the C.elegans postembryonic mesoderm.", Development., 127: 5179-90, November, 2000	
	C50	Matsuda S. et al., "Molecular cloning and characterization of a novel human gene (HERNA) which encodes a putative RNA-helicase." Biochim. Biophys. Acta. 1490(1-2): 163-9, January 2000	
	C51	McManus M. et al., "Gene silencing using micro-RNA designed hairpins." RNA, 8: 842-50, April 2002	
	C52	McCaffrey et al., "RNA interference in adult mice." Nature, 418: 38-9, July 2002	
	C53	McManus et al., "Gene silencing in mammals by small interfering RNAs" Nature Reviews, 3: 737-47, October 2002	
	C54	Mercola D and Cohen JS, "Antisense approaches to gene therapy." Cancer Gene Therapy. 2(1): 47-59. 1995	
	C55	Moss EG, et al., "Non-coding RNA's: lightning strikes twice." Curr. Biol., 10(12): R436-9, June 2000	
	C56	Nicholson A, et al., "Function, mechanism, and regulation of bacterial ribonucleases" FEMS Microbiol Rev, 23(3): 371-90, June, 1999.	
	C57	Notice of Opposition to European Patent No. EP 1 144 623 and Opposition papers filed in EPO by Atugen AG on May 28, 2003	
	C58	Notice of Opposition to European Patent No. EP 1 144 623 and Opposition papers filed in EPO by Janssen Pharmaceutica N.V. on May 28, 2003	
	C59	Paddison P. et al., "Short hairpin RNAs (shRNAs) induce sequence-specific silencing in mammalian cells", Genes Dev., 16: 948-58, March 2002	
	C60	Papers filed in EPO in opposition to European Patent No. EP 1 144 623 by Aventis Pharma Deutschland GmbH on May 28, 2003	
	C61	Papers filed in EPO in opposition to European Patent No. EP 1 144 623 by Dr. Martin Grund on May 28, 2003	
	C62	Papers filed in EPO in opposition to European Patent No. EP 1 144 623 by SiRNA Therapeutics Inc. on May 19, 2003	
	C63	Parrish S. et al. "Distinct Roles for RDE-1 and RDE-4 during RNA interference in Caenorhabditis elegans", RNA, 7: 1397-402, 2001	
	C64	Pasquinelli A. et al., "Conservation of the sequence and temporal expression of let-7 heterochronic regulatory RNA." Nature, 408(6808): 86-9, November, 2000	
	C65	Paul C. et al., "Effective expression of small interfering RNA in human cells." Nat. Biotech., 20: 550-3, 2002	

FORM PTO-1449/A and B (Modified)		APPLICATION NO.: 09/821,832	ATTY. DOCKET NO.: W0571.70010US02
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		FILING DATE: March 30, 2001	CONFIRMATION NO.: 6240
		APPLICANT: Thomas Tuschl et al.	
		GROUP ART UNIT: 1637	EXAMINER: S. Chunduru
Sheet	5	of	5

OTHER ART — NON PATENT LITERATURE DOCUMENTS

Examiner's Initials	Cite No	Include name of the author (in CAPITAL LETTERS) title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, relevant page(s), volume-issue number(s), publisher, city and/or country where published.	Translation (Y/N)
	C66	Plasterk R. "RNA silencing: the genome's immune system." <i>Science</i> , 296: 1263-5, May 2002	
	C67	Reinhart B. et al., "The 21-nucleotide let-7 RNA regulates developmental timing in <i>Caenorhabditis elegans</i> ." <i>Nature</i> , 403(6722): 901-6, February 2000	
	C68	Robinson, R., "RNAi Therapeutics: How Likely, How Soon?" <i>PloS Biology</i> 2:18-20, January 2004	
	C69	Rotondo G et al. "Substrate structure requirements of the Pac1 ribonuclease from <i>Schizosaccharomyces pombe</i> ." <i>RNA</i> , 3: 1182-93, 1997	
	C70	Schweizer P et al., "Technical advance. Double-stranded RNA interferes with gene function at the single-cell level in cereals." <i>Plant Journal</i> . 24(6): 895-903, December, 2000	
	C71	Sharp P. et al., "RNAi and double-strand RNA" <i>Genes & Dev</i> . 13: 139-41, January, 1999	
	C72	Sharp, P., "RNA Interference-2001" <i>Genes and Development</i> 15:485-490, 2001	
	C73	Sijen T. et al., "On the role of RNA amplification in dsRNA-triggered gene silencing.", <i>Cell</i> , 107: 465-76, November 2001	
	C74	Silencer TM Express Kit Instruction Manual, Version 0305, Ambion, Inc., May 2003	
	C75	Slack F. et al., "The lin-41 RBCC gene acts in the <i>C. elegans</i> heterochronic pathway between the let-7 regulatory RNA and the LIN-29 transcription factor." <i>Mol Cell</i> , 5(4): 659-69, April 2000	
	C76	Smith N. et al., "Total silencing by intron-spliced hairpin RNAs." <i>Nature</i> . 407: 319-20, September, 2000	
	C77	Strauss, E. et al., "Molecular Biology. Candidate "gene silencers found." <i>Science</i> , 286(5441): 886	
	C78	Storz G., "Expanding universe of noncoding RNAs." <i>Science</i> , 296: 1260-62., May 2002	
	C79	Sui G. et al., "A DNA vector-based RNAi technology to suppress gene expression in mammalian cells." <i>PNAS</i> , 99(8): 5515-20, April 2002	
	C80	Svoboda et al., "Selective Reduction of Dormant Maternal mRNAs in Mouse Oocytes by RNA Interference" <i>Development</i> 127: 4147-4156, September, 2000	
	C81	Tabara H. et al., "RNAi In <i>C. Elegans</i> : Soaking in the Genome Sequence" <i>Science</i> 282:430-431, October, 1998	
	C82	Tenllado F and Diaz-Ruiz JR., "Double-stranded RNA-mediated interference with plant virus infection." <i>J. Virology</i> . 75: 12288-97, December 2001	
	C83	Timmons L. et al., "Ingestion of bacterially expressed dsRNAs can produce specific and potent genetic interference in <i>Caenorhabditis elegans</i> ", <i>Gene</i> , 263: 103-12, 2001	
	C84	Tuschl T., "RNA Interference and Small Interfering RNAs" <i>Chembiochem</i> 2:239-245, 2001	
	C85	Tuschl T., "RNA Silencing" <i>Upstate Bio</i> . 3:1-15, December 2004	
	C86	Ui-Tei K, et al., "Sensitive assay of RNA interference in <i>Drosophila</i> and Chinese hamster culture cells using firefly luciferase gene as target." <i>FEBS Letters</i> . 479: 79-82, 2000	
	C87	Verma IM and Somla N, "Gene therapy - promises, problems, and prospects." <i>Nature</i> . 389: 239-42, September 7, 1997	
	C88	Waterhouse, PM et al., "Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA" <i>Proc. Natl. Acad. Sci.</i> , 96: 13959-64.	
	C89	Wianny et al., "Specific Interference With Gene Function By Double-Stranded RNA in Early Mouse Development" <i>Nature Cell Biology</i> 2: 70-74, March 2000	
	C90	Yang S et al., "Specific double-stranded RNA interference in undifferentiated mouse embryonic stem cells." <i>Molecular and Cellular Biology</i> . 21(22): 7807-16, November 2001	
	C91	Yu J-Y. et al., "RNA interference by expression of short-interfering RNAs and hairpin RNAs in mammalian cells." <i>PNAS</i> , 99(9): 6047-52, April 2002	
	C92	Zamore P., "Ancient Pathways programmed by small RNAs." <i>Science</i> , 296: 1265-9, May 2002	

EXAMINER	DATE CONSIDERED
----------	-----------------

#EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[NOTE - Must provide a copy of any patent, publication, other information listed, even if it was previously submitted to, or cited by, the U.S. Patent Office in an earlier application, unless the earlier application is identified by the IDS and is relied upon for an earlier filing date under 35 U.S.C. §120, and the copy was provided in the earlier application.]

Holt, Greenfield & Sacks, P.C.

PTFM Account
600 Atlantic Avenue
Boston, MA 02210



CITIZENS BANK
MASSACHUSETTS
6-7017/2110

44 0021373

PAY One Hundred Eighty AND 00/100 DOLLARS

October 26, 2004

\$ 180.00

TO THE
ORDER
OF

Commissioner of Patents & Trademarks

W0571.70010US02

Patricia J. O'Driscoll
AUTHORIZED SIGNATURE

⑈0021373⑈ ⑆211070175⑆ 1108202451⑈

Serial No. 09/821,832 File No. W0571.70010US02 By: HCL:ME
Title: RNA SEQUENCE-SPECIFIC MEDIATORS OF...
Application of TUSCHLE ET AL WGS Date: NDD
The U.S. PTO Mail Room acknowledges receipt of the following on the date stamped hereon:

<input type="checkbox"/> Mailing by Express Mail (37 CFR 1.10) Express Mail Label No. _____	<input checked="" type="checkbox"/> Provisional Application Cover Sheet
<input type="checkbox"/> Patent Application	<input type="checkbox"/> Multiple Dependent Claim Fee Sheet
<input type="checkbox"/> Non-provisional <input type="checkbox"/> Provisional	<input checked="" type="checkbox"/> Inf. Disc. Statement, PTO Form 1449
Incl. _____ pages, (_____ pgs) Specification,	<input checked="" type="checkbox"/> References Cited
(_____ pgs) Abstract, (_____ pgs) Claims (_____ # claims)	Priority Document(s) # _____
<input type="checkbox"/> Design Patent Application	Copy of Notice to File Missing Parts
Declaration(s) _____	Amendment/Response
Drawings _____ Sheet(s) (FIGS. _____)	Petition for Ext. of Time (x2)
<input type="checkbox"/> Formal <input type="checkbox"/> Informal	Issue Fee Transmittal
<input type="checkbox"/> Utility Patent Application Transmittal	Assignment and Coversheet
Fee calculation sheet (x2)	Notice of Appeal
CPA Transmittal	Brief (x3)
Verified Statement claiming small entity status	<input checked="" type="checkbox"/> Check for \$ <u>180</u> - Check # <u>21373</u>
Request for Approval and Entry of Formal Drawings	<input checked="" type="checkbox"/> Transmittal Letter (x2)
<input type="checkbox"/> Other _____	<input type="checkbox"/> Cert. of Mailing under 37 CFR 1.8(a)

DATE MAILED OCT. 26, 2004

BOX 20F2